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UNIVERSITY OF CALIFORNIA

SOME CHARACTERISTICS OF THE FARM REAL ESTATE MARKET IN CALIFORNIA WITH EMPHASIS ON TRANSACTIONS IN IMPERIAL AND TULARE COUNTIES



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CALIFORNIA AGRICULTURAL
EXPERIMENT STATION

BULLETIN 856

CAEBA 856 1-39 (1971)

The structure of the agricultural land market in two subareas is described and analyzed on the basis of survey information collected in Imperial and Tulare counties. USDA information for these areas is included for comparison. Selected characteristics of the farm real estate market studied include description of participants (buyers and sellers) and reasons for transfer; information on price determination and financing arrangements is also given. There are apparent differences noted in some characteristics associated with transactions in the two study areas. Thus, there is clear indication that local phenomena affect and condition the structure of California's agricultural land markets. Many of the differential characteristics apparently are associated with the varied mix of resident (largely farmers) and nonresident buyers noted in the two study areas. The report will be useful to farmers, lenders, brokers, investors, tax authorities, and other decision makers who need information about California's farm real estate market.

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JANUARY, 1972

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SOME CHARACTERISTICS OF THE FARM REAL ESTATE MARKET IN CALIFORNIA, WITH EMPHASIS ON TRANSACTIONS IN IMPERIAL AND TULARE COUNTIES¹

INTRODUCTION

This publication summarizes selected characteristics of the land market in two subareas of the California specialty farming area, and is based on actual transfer records and surveys of buyers. This area is one of 21 types of farming areas identified nationwide by the USDA. It is comprised of 38 counties in the Central Coast, Sacramento Valley, San Joaquin Valley, and Southern California crop reporting districts. The characteristics include description of participants in the land market (i.e., buyers and sellers), reasons for land transfers, information on price determination, and of how purchases are financed,

as well as other elements descriptive of the land market in the areas of study. The characteristics observed in the two subareas are, where possible, compared with previously published results by the U. S. Department of Agriculture (USDA, 1969) for the whole of the California specialty farming area; however, since this analysis is based on actual transfer records it is more complete and provides more depth than the USDA information. Lastly, regression models are used to provide additional inferences about tracts of land sold in the two subareas.

SCOPE OF THIS STUDY

The two subareas selected for this study are the Tulare and Lower Tule River irrigation districts in western Tulare County, and approximately the northern 80 per cent of the Imperial Unit of the Imperial Irrigation District in Imperial County.² These areas are representative of field crop producing areas having significant acreage devoted to cotton production and are reasonably remote from urban areas and contain few population centers.³ The latter consideration was introduced in

order to minimize the effect of speculative activity based on expectation of future nonagricultural development. Fruit and nut production is also of little importance in these areas. Further, selection of areas within boundaries of irrigation districts was done in order to remove the influence of varying water costs (as well as other parameters associated with water supply)⁴ from observed prices paid for individual parcels of land within the subareas. Together the two irrigation districts in west-

¹ Submitted for publication June 2, 1971.

² All land in the primary service area (Imperial Unit) of the Imperial Irrigation District is included in the study area, except for land lying in the southernmost two townships (T16S and T17S); the area excluded lies between an east-west line just north of El Centro and the California-Mexico border.

³ Selection of areas with cotton production constituted the basis of partial financial support for this study by the USDA.

⁴ For example, variation in water quality, reliability of supply, etc.



Fig. 1. The California specialty farming area and selected agricultural areas used in this study.

ern Tulare County have about 150,000 acres of irrigated land, while the net irrigated area in the Imperial Unit of the Imperial Irrigation District is over 400,000 acres.

The first stage of activity on this project involved the identification of parcels of land whose ownership had been transferred between January 1, 1960 and January 1, 1966 in the Tulare County subarea, and between January 1, 1960 and July 1, 1966 in the Imperial Valley subarea. This task was accomplished by a search of transfer document records (mostly deeds) in assessors' offices, subject to the following criteria:

- a. **Area of investigation.** The tract of land must lie within the boundaries of the study areas as defined above.
- b. **Size.** The tract of land must be 40 acres or larger. This restriction was primarily designed to exclude residential and nonagricultural transfers.
- c. **Production agriculture use intention.** The tract of land must be suitable for field crop production and likely to be used in primary production agriculture. Sales with non-primary production agriculture land use, such as, sites for feedlots, cotton gins, packing sheds, or hunting or recreational uses, were excluded. (Often this criterion

could be evaluated only after further survey investigation.)

- d. **Bona fide transaction.** To the extent that it could be determined by information on deeds and other transfer documents, sales were excluded which appeared to be intrafamily transfers, forced sales, settlements of estates, sales of partial interests, or merely changes in the form of ownership, i.e., joint tenancy, incorporation, etc., where grantees were in fact grantors also. (Again the use of this criterion was often assisted by subsequent survey information.)

The above information collection process led to the identification of 113 tracts of land transferred in the Tulare County subarea and 324 tracts in the Imperial Valley subarea. Short mail questionnaires were sent to all buyers to verify the sales, and to obtain information permitting the further evaluation of criterion (c) and (d) for each transaction. Lastly, more detailed information from resident buyers was obtained from personal interviews taken by survey teams during 1-week periods in August 1966 (Tulare County) and March 1967 (Imperial Valley).⁵ Because of lack of resources, collection of detailed information from nonresident buyers was limited. The instruments used were a primary mail questionnaire and a follow-up questionnaire.

CHARACTERISTICS OF THE FARM REAL ESTATE MARKET IN THE TWO SUBAREAS

Characteristics summarized in this section reflect verified information pertinent to the sale of individual parcels of land. Personal interviews with resident buyers, plus information obtained from the mail questionnaire to nonresidents, provided most of the data summarized in this section. For this reason, most of the com-

parisons stress the difference between characteristics noted for resident and nonresident buyers.

Resident buyers tend to be farmers, whereas nonresidents are most likely to be nonfarmers. Table 1 shows the distribution of resident-nonresident buyers and their expressed intention of whether they

⁵For the Tulare County subarea a resident buyer was defined as a buyer living in Tulare or an adjoining San Joaquin Valley county—Fresno, Kings, or Kern. Because of its rather isolated location only buyers living in the Imperial Valley were considered as residents of the Imperial Valley subarea. The survey procedure was random, subject to the constraint that the buyer would be available for a personal interview during the survey week. A detailed description of the sampling procedure used in the Imperial Valley subarea is given in Johnston (1971).

TABLE 1
DISTRIBUTION OF TYPE OF
BUYER AND INTENDED LAND USE
FOR 135 TRACTS,
IMPERIAL VALLEY SUBAREA

Type of buyer	Total purchases	Intended land use	
		Farm	Rent-out
		<i>number</i>	
Resident.....	106	95	11
Nonresident..	29	6	23
Total.....	135	101	34
		<i>per cent</i>	
Resident.....	100	90	10
Nonresident..	100	21	79
Total.....	100	75	25

planned to farm or rent out purchased tracts for 135 Imperial Valley parcels.

Reasons for Buying

Table 2 gives reasons for purchasing land. Farm enlargement was the primary reason given by buyers for one-half of all sales in the two study areas, but its importance as a reason for purchase ranged from two-thirds of purchases by residents to about only one-eighth of purchases by nonresidents. Although investment was the reason given for 31 per cent of all sales, it was the primary reason underlying 57 per cent of nonresident purchases.

A change from tenant to owner operation was the basis for purchase of 8 per cent of all tracts and was important for resident buyers only. Replacing land sold, (an important reason for purchases by nonresident buyers) was given as the primary reason for 9 per cent of all transac-

TABLE 2
PRIMARY REASON GIVEN BY BUYERS FOR THE PURCHASE OF 141 TRACTS,
TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of Buyer	Total purchases	Reason for buying				
		Farm enlargement	Investment	Tenant to owner	Replace land sold	Larger cotton allotment
		<i>number</i>				
Both study areas..	141	71	44	11	13	2
Resident.....	94	63	17	11	1	2
Nonresident....	47	8	27	0	12	0
Imperial Valley...	68	29	23	4	11	1
Resident.....	38	23	10	4	0	1
Nonresident....	30	6	13	0	11	0
Tulare County....	73	42	21	7	2	1
Resident.....	56	40	7	7	1	1
Nonresident....	17	2	14	0	1	0
		<i>per cent*</i>				
Both study areas..	100	50	31	8	9	1
Resident.....	100	67	18	12	1	2
Nonresident....	100	17	57	0	26	0
Imperial Valley...	100	43	34	6	16	1
Resident.....	100	61	26	11	0	3
Nonresident....	100	20	43	0	37	0
Tulare County....	100	58	29	10	3	1
Resident.....	100	71	13	13	2	2
Nonresident....	100	12	83	0	12	0

*Rounded, and therefore may not add up to 100 per cent.

tions. Larger cotton allotment was indicated as the primary motivation of land acquisition for only two purchases. Resident-farmer buyers appeared to rank farm enlargement as the primary motivation, but the high correlation between total croppable acreage and per cent cotton allotment effectively precludes the independence of the two reasons given by the buyers. This is particularly true in the Tulare subarea, where most tracts had cotton allotments of magnitudes ranging from one-fourth to one-third of total croppable acreage. A similar problem of subjective evaluation between farm enlargement and investment motivations for buying was noted in several cases, particularly among resident-farmer buyers who recognized both to be important. Resident buyers (predominantly farmers) gave farm enlargement over investment as the primary reason for purchase in about three of four cases, whereas almost the exact opposite held true for nonresident buyers. Table 2 shows that relatively heavy activity by nonresident buyers is characteristic of the farm real estate market in the Imperial Valley subarea, partly because of close proximity to the rapidly growing population centers of the South Coast (San Diego, Los Angeles—Long Beach, and San Bernardino—Riverside—Ontario metropolitan areas). This is in part revealed by the fact that all but one of nonresident purchases to replace land sold was in the Imperial Valley subarea, and as such this motivation represented 16 per cent of all purchases and 37 per cent of all nonresident purchases. Residents in Imperial Valley gave as most important reasons for buying farm enlargement (61 per cent) and investment (26 per cent), whereas investment (43 per cent) and replacing land sold (37 per cent) were primary reasons underlying purchases by nonresidents.

Farm enlargement as a reason for buying land was greater in the Tulare subarea, underlying 58 per cent of all purchases and 71 per cent of purchases by residents. Investment as the primary reason for nonresident purchases of land (83 per cent) was also more pronounced in the Tulare subarea.

Information from USDA published reports may be of interest to those concerned

with more general characteristics of the farm real estate market in California. A survey of sales in the California specialty farming area in October, 1964, indicated that 78 per cent of farmer buyers (those who were farm operators prior to purchase) intended to farm the land themselves, and that 22 per cent intended to rent it out; further, 59 per cent of purchasers who were non-operators prior to the purchase indicated they would farm the land themselves, 23 per cent would rent it out, and 18 per cent would leave it idle. A subsequent survey in October, 1965, also indicated that non-operator buyers in the California specialty farming area intended to rent purchased land out for 59 per cent of tracts, would leave it idle for 3 per cent of the tracts, 5 per cent of the tracts would be used for a rural residence, and 33 per cent had other intended useage including recreational use, holding for speculation, etc. The same survey indicated that, for those purchases where land was to be used by the buyer, 45 per cent of the purchased tracts would be operated as a complete farm unit, 45 per cent were add-on (farm enlargement) units with land already owned, 3 per cent were add-on units with rented land, and 7 per cent were intended as part-time farms. This characteristic—intended use of purchase land noted for the California specialty farming area—can be contrasted with that reported for the three-state Pacific farm production region (California, Oregon, and Washington) reported in a March, 1969, survey which indicated that only 36 per cent of the tracts would be operated as complete units, 48 per cent were add-on units, and 16 per cent were intended as part-time farms. Additional information for the Pacific farm production region based on a March, 1966, survey indicated that farm operators viewed the purchase of 50 per cent of the tracts as a means to increase volume of production, 25 per cent of the purchases were used to enter farming, 7 per cent to reduce costs, 2 per cent were purchased because of farm programs, and 16 per cent for other unspecified reasons. Annual surveys for 1963 through 1969 for the Pacific farm production region revealed that about 50 per cent of buyers were owner-operators, 8 per cent

TABLE 3

**BUYERS' EXPECTATIONS THAT SON OR RELATIVE WOULD FARM
PURCHASED TRACTS OF LAND IN THE FUTURE,
TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS**

Type of buyer	Total purchases	Buyers indicating that son or relative would farm land in the future	
	<i>number</i>	<i>number</i>	<i>per cent</i>
Both study areas.....	120	47	39
Resident.....	86	41	47
Nonresident.....	34	6	18
Imperial Valley.....	55	21	38
Resident.....	37	16	43
Nonresident.....	18	5	28
Tulare County.....	65	26	40
Resident.....	49	25	51
Nonresident.....	16	1	6

were tenants, and that local and absentee nonfarmers each accounted for about 15 per cent of farm real estate transfers.

To give more insight into buyer's motivations for purchasing land, buyers were also asked if they thought that sons or other relatives would farm the purchased tract in the future. Their answers indicate that about 40 per cent of the tracts purchased would be operated by sons or relatives now or in the future (table 3). There was little relative difference noted for resident purchases between subareas. Response by nonresidents was more variable, ranging from 6 per cent in the Tulare subarea to 28 per cent in the Imperial Valley. The relatively high percentage noted in the latter subarea is probably due to the fact that many nonresident buyers were previously farmers on the South Coast and were, in part, merely relocating their farming units in the Imperial Valley.

Reasons for Selling

Each buyer was asked to indicate the reason he thought important in explaining why the seller sold each parcel; table 4 summarizes results based on such judgments. Categories of reasons may not be mutually exclusive since, for example, "retirement" and "health, age" motivations may be correlated, as could "realize profit" and "obtain different farm" reasons, etc. Therefore, the reasons given represent the primary ones (in the mind of the buyer)

which characterized the motivations of sellers for selling.

Financial pressure and possibility of realizing profit each accounted for about one-fourth of seller motivation, and were followed closely by intentions of sellers to retire (19 per cent). Seller's motivations because of health and age, opportunity to obtain a different farm, unsatisfactory renting experience, and estate sales each accounted for less than 10 per cent of sales. Realization of profit was relatively more important than financial pressure in the Imperial Valley subarea (26 versus 22 per cent), but the opposite was true in the Tulare subarea (financial pressure, 32 per cent, versus realization of profit, 18 per cent). However, there appeared to be no significant differences between the two subareas among the remaining five categories.

Excluding ten estate sales, 63 per cent (95 tracts) were previously owned by farmers—the remainder (56 tracts) were previously held by those adjudged to be nonfarmers. Table 5 shows that about one-third of all sales by farmers were thought due to financial pressure, and a comparable percentage resulted from the combined retirement and health-age motivations. In contrast, 43 per cent of tracts sold by nonfarmers were adjudged to have resulted from the opportunity to realize a profit on previous investments. Financial pressures and unsatisfactory renting ex-

TABLE 4

REASONS FOR SELLING FARM REAL ESTATE, BASED ON BUYER JUDGMENT,
FOR 161 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Study area	Total sales	Reasons for selling						
		Financial pressure	Realize profit	Retirement	Health, age	Obtain different farm	Renting not satisfactory	Estate
		number						
Both study areas...	161	42	37	31	15	15	11	10
Imperial Valley....	95	21	25	18	8	9	7	7
Tulare County.....	66	21	12	13	7	6	4	3
		per cent*						
Both study areas...	100	26	24	19	9	9	7	6
Imperial Valley....	100	22	26	19	8	9	7	7
Tulare County.....	100	32	18	20	11	9	6	5

*Rounded and therefore may not add up to 100 per cent.

perience were each the basis of about 16 per cent of the sales and retirement and health-age reasons were only somewhat less in importance.

Of the 95 tracts sold by farmers, nearly two-thirds (61 tracts) had been farmed by the owner-operators, while one-quarter (24 tracts) had been rented out previously (table 6). Regardless of the previous use by farmer sellers, financial pressure and retirement was thought to underlie about 60 per cent of the sales, but financial pres-

sure to sell was indicated to have been relatively more important for farmer owner-operators than for those who had previously rented the tracts of land to other operators. Results for nonfarmer sellers were similar to those reported in table 5.

Financial pressure appears to have been relatively more important in the areas and time covered in this study than indicated by an October 1966 USDA survey for the California specialty farming area. Only 17

TABLE 5

REASONS FOR SELLING FARM REAL ESTATE, BY SELLER'S OCCUPATION,
FOR 151 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS*

Seller's occupation	Total sales	Reasons for selling					
		Financial pressure	Realize profit	Retirement	Health, age	Obtain different farm	Renting not satisfactory
		number					
Farmer.....	95	33	13	24	8	15	2
Nonfarmer.....	56	9	24	7	7	0	9
		per cent†					
Farmer.....	100	35	14	25	8	16	2
Nonfarmer.....	100	16	43	13	13	0	16

*Based on sales reported in table 4, excluding sales of estates.

†Rounded and therefore may not add up to 100 per cent.

TABLE 6
REASONS FOR SELLING FARM REAL ESTATE BY SELLER'S OCCUPATION AND PRIOR USE OF LAND,
FOR 151 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS*

Seller's occupation	Prior use of land	Total sales	Reasons for selling					Renting not satisfactory
			Financial pressure	Realize profit	Retirement	Health, age	Obtain different farm	
			<i>number</i>					
Farmer.....	Operated by owner.....	61	23	9	14	4	11	—
	Rented out.....	24	7	2	7	2	4	2
	Other†.....	10	3	2	3	2	0	0
	Rented out.....	46	7	19	6	6	0	8
	Other‡.....	10	2	5	1	1	0	1
			<i>per cent</i>					
Farmer.....	Operated by owner.....	100	38	15	23	7	18	—
	Rented out.....	100	29	8	29	8	17	8
	Other†.....	100	30	20	30	20	0	0
	Rented out.....	100	15	41	13	13	0	17
	Other‡.....	100	20	50	10	10	0	10
Nonfarmer.....	Operated by owner.....							
	Rented out.....							
	Other†.....							
	Rented out.....							
	Other‡.....							

*Based on sales reported in table 4, excluding sales of estates.
†Includes idle tracts, and parcels partly farmed and rented out and partly farmed and idle.
‡Includes idle tracts and parcels partly rented out and idle.
§Rounded and therefore may not add up to 100 per cent.

per cent of sales reported the reason for selling as "unsatisfactory investment" compared to 26 per cent in this study (table 4). Further, somewhat higher proportions of sales were indicated to have been sold for profit realization (35 versus 24 per cent) and for retirement reasons (30 versus 19 per cent). Other reasons identified were "buy another farm," 9 per cent; "take another job," 2 per cent; and "other," 7 per cent. Types of sellers are also identified in annual survey data for the Pacific farm production region. Over the period 1963-69, active farmers constituted about 50 per cent of all sellers, retired farmers, 12 per cent; local nonfarmers, 13 per cent; absentee owners, 16 per cent; and estate sales, 8 per cent.

Age and Education of Buyers

Resident buyers were typically younger than nonresidents according to results

given in table 7 (see also figure 2). All purchases by buyers less than 30 years old were by resident buyers. Buyers 60 years old or older accounted for only 13 per cent of all resident purchases, whereas 39 per cent of the nonresidents purchasing land were 60 years old or older. In general, resident and nonresident buyers appear to be older in the Imperial Valley subarea than in the Tulare County subarea.

The age distribution of buyers in both study areas (table 7) differs from that previously reported by the USDA for the California specialty farming area (based on an October, 1964, survey), only in the fact that it is somewhat more skewed in the upper-age classes. The age distribution is quite similar for the three youngest age groups—3 per cent, less than 30 years of age; 16 per cent, 30 to 39 years; and 35 per cent, 40 to 49 years—but the reported 33 per cent for ages 50 to 59 and 13 per cent

TABLE 7
AGE DISTRIBUTION OF BUYERS FOR 131 TRACTS, TULARE COUNTY
AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Age of buyer						
		20-29	30-39	40-49	50-59	60-69	70-79	80-89
		<i>number</i>						
Both study areas..	131	4	24	47	29	18	7	2
Resident.....	95	4	19	39	20	9	4	0
Nonresident....	36	0	5	8	9	9	3	2
Imperial Valley...	58	1	11	16	15	8	5	2
Resident.....	38	1	9	13	9	3	3	0
Nonresident....	20	0	2	3	6	5	2	2
Tulare County....	73	3	13	31	14	10	2	0
Resident.....	57	3	10	26	11	6	1	0
Nonresident....	16	0	3	5	3	4	1	0
		<i>per cent*</i>						
Both study areas..	100	3	18	36	22	14	5	2
Resident.....	100	4	20	41	21	9	4	0
Nonresident....	100	0	14	22	25	25	8	6
Imperial Valley...	100	2	19	28	26	14	9	3
Resident.....	100	3	24	34	24	8	8	0
Nonresident....	100	0	10	15	30	25	10	10
Tulare County....	100	4	18	42	19	14	3	0
Resident.....	100	5	18	46	20	10	2	0
Nonresident....	100	0	19	31	19	25	6	0

*Rounded and therefore may not add up to 100 per cent.

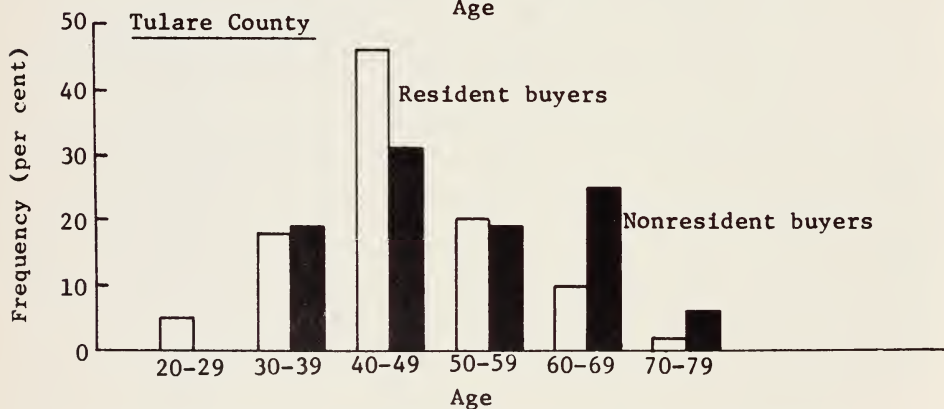
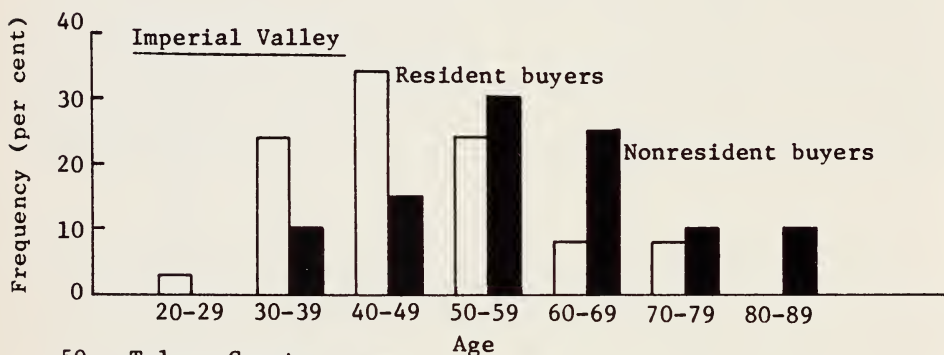
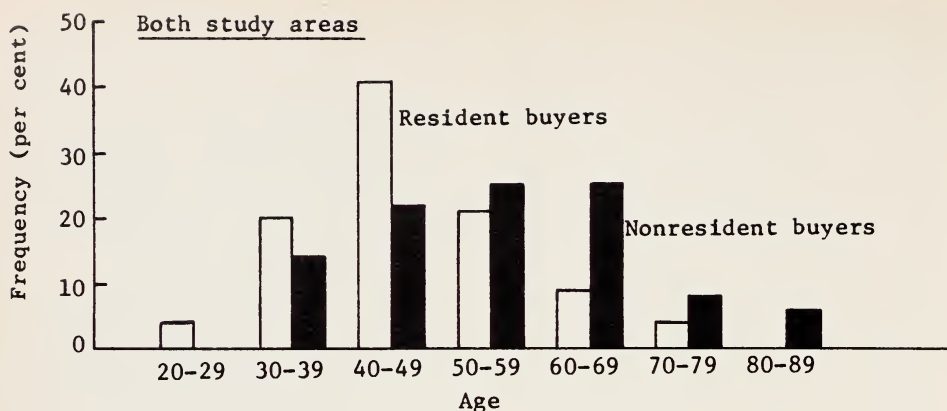


Fig. 2. Age distribution of buyers, Tulare County and Imperial Valley subareas.

for ages 60 or older as compared to 29 and 27 per cent, respectively, in this study, appears to be significant. (Although this present study did not ask for estimates of sellers' ages, a survey taken in October, 1965, revealed that 14 per cent of the sellers in the California specialty farming area were less than 45 years of age, 43 per cent were less than 55 years of age, and 73 per cent were less than 65 years old.

Buyers were also asked their level of education; results are summarized in table 8. The typical buyer in all classifications was a high school graduate, and one-fifth of all buyers had completed at least 4 years of college. Nonresidents were twice as likely to be college graduates than were residents.

Buyers' Source of Information

Buyers were asked how they heard about the tract of land that they ultimately pur-

chased, and their answers are summarized in table 9. Buyers of land in the Imperial Valley subarea had relied somewhat more heavily on information directly from the seller (51 per cent). In contrast, buyers in the Tulare subarea first heard about the tract being for sale more often from a broker or agent (41 per cent) rather than directly from the seller (31 per cent). In both subareas these two sources of information were the most important for both residents and nonresidents, although nonresidents had, understandably, relied more upon brokers or agents rather than direct contact with sellers in learning that the tract of land was for sale. Nonetheless, nonresidents also relied on direct information from the seller to learn about 35 per cent of all tracts purchased. The unexpected significance of this source of information is probably due to the fact that

TABLE 8
EDUCATION OF BUYERS FOR 124 TRACTS, TULARE COUNTY
AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Education (in years)			
		4-7	8-11	12-15	16-19
		number			
Both study areas.....	124	7	25	67	25
Resident.....	93	3	21	54	15
Nonresident.....	31	4	4	13	10
Imperial Valley.....	54	4	7	34	9
Resident.....	36	0	5	26	5
Nonresident.....	18	4	2	8	4
Tulare County.....	70	3	18	33	16
Resident.....	57	3	16	28	10
Nonresident.....	13	0	2	5	6
		per cent*			
Both study areas.....	100	6	20	54	20
Resident.....	100	3	23	58	16
Nonresident.....	100	13	13	41	32
Imperial Valley.....	100	7	13	63	18
Resident.....	100	0	14	72	14
Nonresident.....	100	22	11	45	22
Tulare County.....	100	4	26	47	23
Resident.....	100	5	28	49	18
Nonresident.....	100	0	15	38	46

*Rounded and therefore may not add up to 100 per cent.

TABLE 9

SOURCE OF INFORMATION ABOUT TRACT OF LAND PURCHASED FOR
169 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Source of information				
		Directly from seller	Broker or agent	Mutual friend	Community knowledge	Advertisement
	number					
Both study areas.....	169	72	60	19	9	9
Resident.....	123	56	41	11	9	6
Nonresident.....	46	16	19	8	0	3
Imperial Valley.....	99	50	31	9	4	5
Resident.....	68	37	20	5	4	2
Nonresident.....	31	13	11	4	0	3
Tulare County.....	70	22	29	10	5	4
Resident.....	55	19	21	6	5	4
Nonresident.....	15	3	8	4	0	0
	per cent*					
Both study areas.....	100	43	36	11	5	5
Resident.....	100	46	33	9	7	5
Nonresident.....	100	35	41	17	0	7
Imperial Valley.....	100	51	31	9	4	5
Resident.....	100	54	29	7	6	3
Nonresident.....	100	42	36	13	0	10
Tulare County.....	100	31	41	14	7	6
Resident.....	100	35	38	11	9	7
Nonresident.....	100	20	53	27	0	0

*Rounded and therefore may not add up to 100 per cent.

several nonresident buyers purchased more than single tracts of land over the period of this study. This is particularly evident in the Imperial Valley subarea, where nonresident purchasers evidently first heard of the land for sale directly from the seller in 42 per cent of the transfers but nearly one-fifth (6 of 31 sales) of the nonresident purchases in the Imperial Valley subarea were accounted for by one buyer. The source of information from mutual friends of both buyer and seller appeared to have been relatively more important to nonresident buyers than for residents. Community knowledge was useful only to resident buyers in finding land for sale.

Buyers' Search for Land

Buyers were asked if they had actively searched for land prior to their purchase.

Of the 124 buyers who responded, 57 or 46 per cent indicated that they had been involved in an active search for land (table 10). Purchasers of land in the Imperial Valley subarea had been somewhat more active in their search for land (49 per cent). Buyers in the Tulare subarea had been less active as a whole (43 per cent), but one-half of all purchases by nonresident buyers in that area had been preceded by active search.

A total of 46 respondents revealed the geographical extent of their search. Although there was considerable variation between the subareas and among the type of buyers (partly due to the small number of responses), 78 per cent had confined their search to the county where they bought the land (Imperial or Tulare), while 11 per cent had also searched in adjacent counties, and the remaining 11

TABLE 10
PERCENTAGE OF BUYERS WHO HAD ACTIVELY SEARCHED FOR LAND, AND THEIR AREA OF SEARCH,
FOR 124 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Indication of buyers										
		Active search for land	Location of search								Entire state	
			Total	Same county		Adjacent counties						
				number	per cent	number	per cent	number	per cent			
Both study areas.....	124	number	per cent	number	per cent	number	per cent	number	per cent	number	per cent	
Resident.....	87	57	46	46	78	5	11	5	11	5	11	
Nonresident.....	37	39	45	32	81	26	9	3	9	3	9	
Imperial Valley.....	59	18	49	14	72	10	14	2	14	2	14	
Resident.....	38	29	49	26	81	21	8	2	8	3	12	
Nonresident.....	21	19	50	17	94	16	0	0	0	1	6	
Tulare County.....	65	10	48	9	56	5	22	2	22	2	22	
Resident.....	49	28	43	20	75	15	15	3	15	2	10	
Nonresident.....	16	20	41	15	67	10	20	3	20	2	13	
		8	50	5	100	5	0	0	0	0	0	

per cent had also searched elsewhere (beyond adjacent counties) in California.

Buyers were not asked how long they searched prior to their purchase, but 25 buyers did indicate that they had an effective time limitation on the period in which they could purchase because of the desire not to be held liable for capital gains taxation on parcels of land sold previously. Most of these purchases were by active or retired farmers. Of the 25 buyers, 19 purchased land in the Imperial Valley and 6 in the Tulare County subarea.

Buyers were also asked if they had experienced difficulty in finding the type of land or farm they wanted (table 11). There was generally a poor response to this question, largely because few buyers had much in the way of previous experience in the land market on which to make valid comparisons. Thus, any response is subjective

and conditioned by the degree of past involvement in the farm real estate market—buyers who had difficulty would probably be more inclined to answer than those who found no problem in their search. Nonetheless, the majority of the responses generally indicated no difficulty, although the typical nonresident buyer as a whole, and in Imperial Valley in particular, indicated some difficulty. It is also of interest that about one-fifth of resident buyers in Tulare County indicated that the search was very difficult, but that only 3 per cent of all buyers in the Imperial Valley responded in such a manner.

The Price Determination Process

Replies were received from 131 resident buyers and 49 nonresident buyers as to

TABLE 11

OPINION OF BUYERS ABOUT THE DEGREE OF DIFFICULTY IN FINDING THE TYPE OF LAND THEY WANTED, FOR 48 TRACTS ONLY, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Degree of difficulty in finding land		
		No difficulty	Some difficulty	Extremely difficult
		<i>number</i>		
Both study areas.....	48	27	17	4
Resident.....	32	20	9	3
Nonresident.....	16	7	8	1
Imperial Valley.....	29	16	12	1
Resident.....	18	12	6	0
Nonresident.....	11	4	6	1
Tulare County.....	19	11	5	3
Resident.....	14	8	3	3
Nonresident.....	5	3	2	0
		<i>per cent*</i>		
Both study areas.....	100	56	35	8
Resident.....	100	63	28	9
Nonresident.....	100	44	50	6
Imperial Valley.....	100	55	41	3
Resident.....	100	67	33	0
Nonresident.....	100	36	55	9
Tulare County.....	100	58	26	16
Resident.....	100	57	21	21
Nonresident.....	100	60	40	0

*Rounded and therefore may not add up to 100 per cent.

how they and the seller reached agreement on the final sale price. Table 12 summarizes this information. However, the price bargaining process showing the three desired components of seller's asking price, buyer's offer price, and final transfer price is complete for only 131 of the 180 transfers.

The final transfer price was equal to the seller's asking price for 82 of the 180 transfers. In 76 of the 82 transfers the buyer's initial offer price was also equal to the seller's asking price; in the remaining six cases the buyer initially offered less than the seller's asking price although the buyer subsequently accepted the seller's offer as the final transfer price. The land market in the Imperial Valley appears to have been more a seller's market than in the Tulare County subarea, since the final transfer price was equal to the seller's asking price in 48 per cent of all transfers (as compared to only 42 per cent in the latter area). The dominance of a seller's market in the Imperial Valley is even more apparent if only transfers with indicated seller's prices are used for the analysis. Of the 70 responses in the Imperial Valley, 51 transfers (73 per cent) had final transfer prices equal to the seller's offer price, whereas that was true for only 51 per cent of the transfers in the Tulare County subarea.

The final price was less than the seller's asking price for 49 tracts or 27 per cent of the transfers in both areas. These sales accounted for 37 per cent of all transfers with known asking prices of sellers. The ability of buyers to reduce final transfer prices below the seller's asking price was, as indicated previously, less in Imperial Valley than the Tulare County subarea. Only 18 per cent of all sales in the former subarea had final transfer prices less than seller asking prices, while 41 per cent of transfers were at price levels less than asking prices in the latter subarea. In 63 per cent of the instances where price concessions were achieved, final transfer prices were equal to the counter offer prices of the buyers. The remaining transfers (37 per cent) were at price levels which were compromises between initial seller asking and buyer offer prices. It also appeared that resident buyers were more successful in achieving price concessions from sellers.

Respondents did not indicate seller asking prices for 26 of the 180 transfers. This could result from the inability of the buyer to recall the initial seller asking price, but was more generally descriptive of those instances in which the seller did not know the approximate market value of his land or did not choose to reveal an acceptable price level to the buyer. Rather, the prospective buyer was asked to first make a firm offer for the tract under consideration. The buyer's offer price was subsequently accepted in 89 per cent of the transactions emanating from this price determination process. The remaining 11 per cent of the transactions resulted in a final transfer price at a level above the initial offer price of the buyer.

Nonprice Bargaining and Buyer Awareness of Competition

Buyers of only 15 per cent of the tracts transferred reported bargaining with the seller on considerations other than price (table 13). Negotiations about terms of sale (other than sales price) constituted the majority of the instances where nonprice bargaining was reported, and was relatively more characteristic of resident than non-resident buyers among those buyers reporting some nonprice bargaining activity. However, as a per cent of total purchases, a higher percentage of nonresident than resident purchasers engaged in bargaining over terms of sale. Buyers were also asked if they had knowledge of other parties with active interest in the same parcel of land which they subsequently purchased. About one-fifth of all buyers were aware of competition for the tract purchased (table 13). On the basis of buyer evaluation, it appears that there may have been somewhat more competition in the Tulare County subarea.

Methods of Financing

The information summarized in table 14 shows that there was considerable variation in methods of financing between the two subareas and among the two classes of buyers.

Of the 176 purchases, 28 or 16 per cent were paid fully in cash. More than one-third (36 per cent) of all nonresident pur-

TABLE 12

SUMMARY OF FINAL PRICE DETERMINATION PROCESS (BARGAINING) FOR 180 TRACTS,
TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Nature of bargaining between buyer and seller										Only final price given
		Final price equal to asking price			Final price below asking price			No asking price given				
		Total	Equal to offer price	After bargaining	Total	Equal to offer price	Between offer and asking price	Total	Final price equal to offer price	Final price above offer		
<i>number</i>												
Both study areas...	180	82	76	6	49	31	18	26	23	3	23	
Resident.....	131	60	55	5	41	28	13	16	15	1	14	
Nonresident.....	49	22	21	1	8	3	5	10	8	2	9	
Imperial Valley...	106	51	47	4	19	13	6	20	18	2	16	
Resident.....	75	37	33	4	15	11	4	13	12	1	10	
Nonresident.....	31	14	14	0	4	2	2	7	6	1	6	
Tulare County.....	74	31	29	2	30	18	12	6	5	1	7	
Resident.....	56	23	22	1	26	17	9	3	3	0	4	
Nonresident.....	18	8	7	1	4	1	3	3	2	1	3	
<i>per cent*</i>												
Both study areas...	100	46	—	—	27	—	—	14	—	—	13	
Resident.....	100	46	—	—	31	—	—	12	—	—	12	
Nonresident.....	100	45	—	—	16	—	—	20	—	—	18	
Imperial Valley...	100	48	—	—	18	—	—	19	—	—	15	
Resident.....	—	49	—	—	20	—	—	17	—	—	13	
Nonresident.....	—	45	—	—	13	—	—	23	—	—	19	
Tulare County.....	100	42	—	—	41	—	—	7	—	—	9	
Resident.....	—	41	—	—	46	—	—	5	—	—	7	
Nonresident.....	—	44	—	—	22	—	—	17	—	—	17	

*Rounded and therefore may not add up to 100 per cent.

TABLE 13

SUMMARY OF NONPRICE BARGAINING AND BUYER AWARENESS OF
COMPETITION FOR 180 TRACTS, TULARE COUNTY AND
IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Nature of nonprice bargaining between buyer and seller					Buyer was aware of competition for tract purchased	
		Total		Terms of sale	Mineral rights	Other*		
	<i>number</i>	<i>number</i>	<i>per cent</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>number</i>	<i>per cent</i>
Both study areas...	180	27	15	14	9	4	38	19
Resident.....	131	14	11	9	3	2	29	22
Nonresident.....	49	13	27	5	6	2	9	18
Imperial Valley....	106	17	16	9	8	0	18	17
Resident.....	75	8	11	6	2	0	13	17
Nonresident.....	31	9	29	3	6	0	5	16
Tulare County.....	74	10	14	5	1	4	20	27
Resident.....	56	6	11	3	1	2	16	29
Nonresident.....	18	4	22	2	0	2	4	22

*Included bargaining over size of cotton allotment, proportion of down payment, and determination of current crops to be included in sale agreement.

chases were cash sales compared to only 9 per cent of all resident purchases. Cash purchases of land were concentrated in the Imperial Valley subarea (only three were in the Tulare subarea) and about two-thirds of the cash transactions there involved nonresident buyers. In fact, cash payments were associated with one-half of all nonresident purchases in the Imperial Valley.

Mortgaging the purchased tracts was the most common single method of buyer financing in both subareas and was the basis for 35 per cent of all purchases. It was relatively more importance to resident buyers. The second most common single method of financing was purchasing on contract; this accounted for 15 per cent of all purchase financing arrangements. It was used as a method of financing relatively more in the Tulare subarea, and in fact was the basis for about one-third of all nonresident purchases in that area.

In 9 per cent of the purchases an assumed mortgage was the chief single financial instrument used by buyers. It was used relatively more by resident buyers of Imperial Valley land than by any other group of purchasers. The last single method of financing was use of mortgages on other real estate owned by the buyer.

This source of investment funds made up the basis of 5 per cent of all sales.

Use of multiple forms of financing appeared to be relatively more common among resident than nonresident buyers (24 versus 13 per cent). Both assumed mortgages, and mortgages on the purchased tracts were heavily relied upon by buyers using more than a single method of financing.

Nearly one tract out of every ten reported that the purchase was accomplished with no cash down (16 of the 176 tracts). These were associated with purchases with multiple forms of finance discussed above and were typically associated with resident buyers.

Buyers were also asked to indicate the source of finance for noncash sales (table 15). Federal Land Banks, insurance companies, savings and loan associations, and banks, were the single most important source and were the only basis of financial assistance for 53 per cent of all sales.

Sellers were the sole source of financing for 32 per cent of all sales. Some variability is apparent between subareas and among types of buyers.

Credit is important in the transfer of farm real estate from seller to buyer. Previously published USDA data for the Pa-

TABLE 14

METHOD OF FINANCING FOR 176 TRACTS, TULARE COUNTY AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Paid all cash	Method of financing									
			Mortgage on land bought	Bought on contract	Assumed mortgage	Mortgage on other real estate	Multiple forms of financing involving					
							Total	Mortgage on land bought	Bought on contract	Assumed mortgage	Mortgage on other real estate	
<i>number</i>												
Both study areas...	176	28	60	27	16	8	37	29	7	24	12	
Resident.....	129	11	49	19	13	6	31	25	6	21	12	
Nonresident.....	47	17	11	8	3	2	6	4	1	3	0	
Imperial Valley....	105	25	33	12	11	4	20	13	5	10	9	
Resident.....	72	8	27	9	9	3	16	11	4	9	9	
Nonresident.....	33	17	6	3	2	1	4	2	1	1	0	
Tulare County.....	71	3	27	15	5	4	17	16	2	14	3	
Resident.....	57	3	22	10	4	3	15	14	2	12	3	
Nonresident.....	14	0	5	5	1	1	2	2	0	2	0	
<i>per cent*</i>												
Both study areas...	100	16	35	15	9	5	21	—	—	—	—	
Resident.....	100	9	38	16	11	5	24	—	—	—	—	
Nonresident.....	100	36	23	17	6	4	13	—	—	—	—	
Imperial Valley....	100	24	32	12	11	4	19	—	—	—	—	
Resident.....	100	11	38	13	13	4	22	—	—	—	—	
Nonresident.....	100	52	18	9	6	3	12	—	—	—	—	
Tulare County.....	100	4	38	21	7	6	24	—	—	—	—	
Resident.....	100	5	39	18	7	5	27	—	—	—	—	
Nonresident.....	100	0	36	36	7	7	14	—	—	—	—	

*Rounded and therefore may not add up to 100 per cent.

cific farm production region for the last decade indicate that three-fourths and more of all sales have been financed by credit, and that the percentage has increased from 74 per cent of all sales in 1960 to 87 per cent in 1969. The same source also estimates that the ratio of debt to purchase price has increased from 70 per cent in 1960 to 75 per cent in 1969. Although this study was not able to establish the relative proportions of the total volume of credit extended by financial institutions and sellers, previous evaluations have established the importance of seller-

financing in the farm real estate market. During the year ending October 1, 1967, it was estimated that sellers provided 78 per cent of the total dollar volume of credit in the Pacific farm production region. Credit extended by sellers in the West is at interest rates less than, or comparable to, those of many financial institutions and is generally shorter termed than that of financial institutions; the average term of seller credits ranged from 12 to 15 years, while average terms for insurance companies and Federal Land Bank financing are 22 and 33 years, respectively.

TABLE 15
SOURCES OF BUYER FINANCING FOR 136 TRACTS, TULARE COUNTY
AND IMPERIAL VALLEY SUBAREAS

Type of buyer	Total purchases	Source of financing		
		Financial institution only	Seller only	Both financial institution and seller
		<i>number</i>		
Both study areas.....	136	72	43	21
Resident.....	112	59	33	20
Nonresident.....	24	13	10	1
Imperial Valley.....	57	28	20	9
Resident.....	47	21	17	9
Nonresident.....	10	7	3	0
Tulare County.....	79	44	23	12
Resident.....	65	38	16	11
Nonresident.....	14	6	7	1
		<i>per cent*</i>		
Both study areas.....	100	53	32	15
Resident.....	100	53	29	18
Nonresident.....	100	54	42	4
Imperial Valley.....	100	49	35	16
Resident.....	100	45	36	19
Nonresident.....	100	70	30	0
Tulare County.....	100	56	29	15
Resident.....	100	59	25	17
Nonresident.....	100	43	50	7

*Rounded and therefore may not add up to 100 per cent.

ADDITIONAL DESCRIPTION AND ANALYSIS SPECIFIC TO THE IMPERIAL VALLEY SUBAREA

A total of 324 transfers of land were adjudged to be possible bona fide transactions in the Imperial Valley subarea on the basis of information available from transfer documents. These transfers had deed dates from January 1, 1960 through June 30, 1966. The total number of possible bona fide transactions was reduced to 274 transfers on the basis of further information obtained from buyer response to mail surveys and personal interviews. Of the 274 transfers, 135 were definitely verified as bona fide transactions; the remaining 139 transactions were possible bona fide transactions, but additional survey information which would permit definite verification was not available for this group.

Of the 135 verified bona fide transactions, 106 (79 per cent) were purchased by resident buyers, as defined previously and shown in table 1; the remaining 29 transfers were to nonresident buyers. Detailed information from personal interviews with resident buyers and responses to the same questionnaire mailed to nonresidents was obtained for 87 of the 135 verified transfers, of which 65 involved resident buyers (75 per cent).⁹ Roughly, the same proportion between resident and nonresident buyers was also true of the nonverified set of transactions. Resident buyers accounted for 103 (74 per cent) of the 139 nonverified sales.

⁹ Of the 65 transfers involving resident buyers, 62 of them were made by farmers. The operating units of 31 farmers involved in 59 of these transactions are the basis for information analyzed in Johnston (1971).

⁷ Indicated sales price was estimated on the basis that each \$1.10 of I.R.S. represented \$1,000 of market sales value.

⁸ This conclusion follows from the following linear regression with verified sales price (VSP) as the dependent variable and indicated sales price (ISP) as the independent variable:

$$\text{VSP} = .753 \text{ ISP} \quad R^2 = .909 \quad 134 \text{ d.f.}$$

The null hypothesis that the regression coefficient (β) is equal to unity is rejected on the basis of the student's t -statistic, $t = 14.02$. The same model was also estimated for observations by size of tract transferred given in table 17 to determine whether deviations associated with large dollar transactions might have affected the regression line for the entire set of observations. The null hypothesis $\beta = 1$ was rejected for all six classes except for transactions involving tracts of land ranging from 161 to 320 acres in size where it was not rejected at the 90 per cent confidence level ($t = 1.76$). As a result, it is concluded that the relationship between VSP and ISP is not sensitive to size of tract (and, hence, indirectly to the size of total purchase price).

Verified and Indicated Sales Prices

Prices verified by buyers were compared with prices indicated by Internal Revenue Service stamps on transfer documents to ascertain whether the latter could be used as an accurate indicator of sales prices in the Imperial Valley subarea.⁷ This was an important consideration because indicated sales prices were available for most of 139 nonverified transfers. If they were found to give accurate estimates of actual market prices, then the analysis of farm real estate prices in the last section of this report could be based on a possible 274 observations, rather than only on the set of 135 verified sales.

However, it was found that indicated sales price was not a statistically satisfactory estimator of verified sales price. The statistical model based on the 135 verified bona fide transactions suggests that the indicated sales price based on Internal Revenue Stamps overestimates actual verified sales price on the average for observations of transactions in the Imperial Valley subarea.⁸ That is, parties involved in the transactions appeared to have purchased more revenue stamps than justified by actual verified sales prices. (Actual verified sales prices averaged about 75.3 per cent of indicated prices). Therefore, indicated sales price does not appear to be a valid proxy for actual sales price, and the possi-

bility of expanding the total set of observations by the 139 nonverified transactions is precluded for the subsequent analysis of farm real estate prices in the Imperial Valley subarea.

Sales Frequencies

During the period covered by the survey of the land market in the Imperial Valley subarea, 15 per cent of the transfers were for tracts of land involved in more than a single real estate transaction. Of the 274 transfers, 42 were associated with 18 tracts of land involved in 2 transfers and with 2 tracts of land observed to have changed ownership three times during the study period. The remaining 85 per cent of the transactions involved 232 tracts which had single changes of ownership.

The frequency with which buyers participated in the land market was also of interest. Based on the name of the buyer (grantee) given on transfer documents, the observed frequency was as follows:

163 buyers purchased only 1 tract of land,

38 buyers purchased 2 tracts of land,

4 buyers purchased 3 tracts of land,

5 buyers purchased 4 tracts of land,

1 buyer purchased 6 tracts of land,

1 buyer purchased 7 tracts of land, and

1 buyer purchased 10 tracts of land.

Therefore, the 274 transfers involved 213 individual buyers. However, the above distribution is based solely on the identification of the new ownership of each tract, and does take into account the fact that individual buyers may have been involved in more purchases through various distinct ownership identities, e.g., single ownership, partnerships, corporations, and the like.⁹

The ownership of land does not necessarily correspond to the way in which land is actually combined into farming units. For example, the 31 farming units described in more detail in Johnston (1971) accounted for 59 transfers as summarized below:

17 farm units were associated with single purchases only,

6 farm units were associated with two purchases,

4 farm units were associated with three purchases,

2 farm units were associated with four purchases, and

2 farm units were associated with five purchases.

The Imperial Valley subarea survey then demonstrates by comparison that land ownership and operation are not necessarily the same because of the apparent fact that the several parties involved in the farm operation may own land under more than a single distinct ownership identity.

Distribution of Transfers Over Time

Table 16 summarizes the distribution of farm land transfers in the Imperial Valley by month and year according to deed dates given on transfer documents. Of the 274 transfers observed over the period January 1, 1960, to June 30, 1966, 211 transfers occurred during the first four years 1960–1963. However, total number of transfers ranged only from 50 to 54 annually in each of the first four years, lesser numbers of 31 transfers were identified for 1964, 27 for 1965, and only 5 during the first 6 months of 1966. Representatives of real estate and lending institutions suggested that the reduced sales frequency might be due to the uncertainty about whether farms in the Imperial Irrigation District were subject to the 160-acre limitation. Annual patterns of sales activity are similar for both the verified and nonverified sets. The only apparent difference between the two sets are evidenced by unlike relative frequencies identified for 1965 (figure 3).

Seasonal activity indicated by the frequency of transactions during the calendar year appear to be highest from April through July. The months of March, August, and September were the least important, as evidenced by lower relative frequencies (fig. 4).

⁹ For example, single transactions in which two individuals were each identified as grantees and a sale to a partnership of the same two individuals were evaluated as being transfers to three separate buyers describing distinct ownership identities.

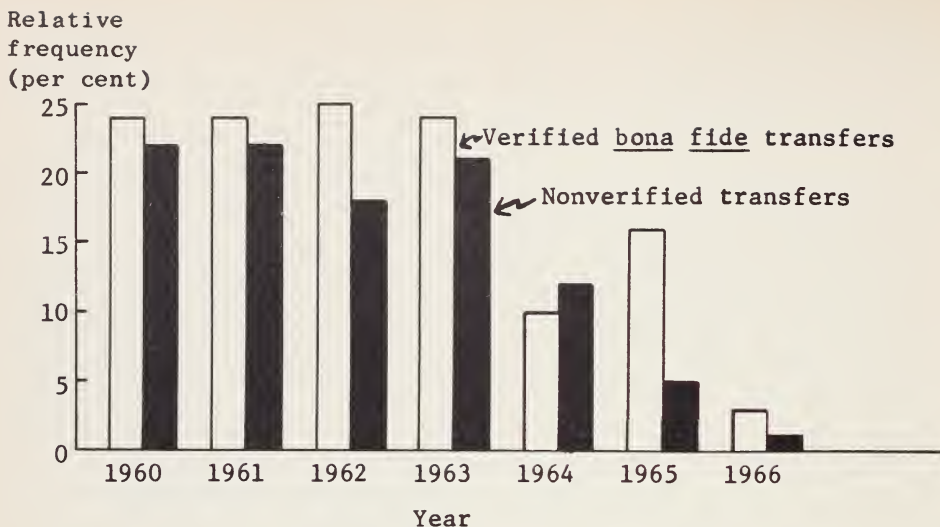


Fig. 3 Relative frequency of transfers, by year, for 135 verified bona fide transfers and for 139 nonverified transfers, Imperial Valley subarea, 1960-1965, and first 6 months of 1966.

Distribution of Transfers by Size

Table 17 shows the distribution of tracts by size categories on the basis of deeded acreage. Over 70 per cent of all sales were 160 acres or less in size. Again, there appears to be little difference between the two sets of observations. The set of 135 verified bona fide transactions engrossed 23,184 acres and had an average tract size of 173 acres.

Distribution of Transfers by Value

The typical land transfer among verified bona fide transactions in the Imperial Valley subarea had a gross sales price of

\$60,000 to \$79,999 (see table 18). Transactions with gross sales prices of less than \$100,000 accounted for 68 per cent of the total; 27 per cent of the transactions had gross sales prices of more than \$100,000 but less than \$300,000. A total of seven land transfers were made which had gross sales prices in excess of \$300,000. Five of these sales were for more than one-half million dollars and one was in excess of one million dollars. The average price for the seven land transfers was \$642,000.

Distribution of Transfers by Price Per Acre

The typical verified price paid per deeded

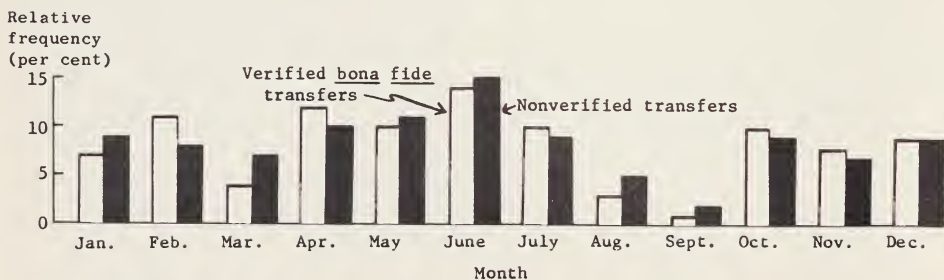


Fig. 4. Relative frequency of transfers by month for 135 verified bona fide transfers and for 139 nonverified transfers, Imperial Valley subarea.

TABLE 16

DISTRIBUTION OF TRANSFERS, BY MONTH AND YEAR, JANUARY 1, 1960 TO JUNE 30, 1966 FOR 135 VERIFIED BONA FIDE TRANSFERS, 139 NONVERIFIED TRANSFERS, AND THE TOTAL OF 274 TRANSFERS, IMPERIAL VALLEY SUBAREA

Month	Distribution of verified bona fide transfers										Distribution of nonverified transfers										Total both sets	
	Year						Total				Year						Total					
	number						per cent*				number						per cent*					
	1960	1961	1962	1963	1964	1966	1960	1961	1962	1963	1964	1965	1966	1960	1961	1962	1963	1964	1965	1966		
January.....	0	1	4	1	1	3	0	10	7		2	6	3	0	0	12	9			22	8	
February.....	4	1	2	3	1	2	1	15	11		3	0	3	0	0	11	8			26	9	
March.....	3	0	0	1	2	0	0	6	4		1	4	1	2	1	10	7			16	6	
April.....	3	0	2	5	3	1	2	16	12		1	2	5	1	2	11	8			27	10	
May.....	2	3	3	3	1	1	1	14	10		1	5	3	5	1	17	12			31	11	
June.....	3	5	4	4	1	2	0	19	14		6	6	3	2	3	21	15			40	15	
July.....	0	2	3	3	2	3	—	13	10		5	2	0	2	2	13	9			26	9	
August.....	2	1	0	1	0	0	—	4	3		6	0	1	2	1	10	7			14	5	
September.....	0	0	0	1	0	0	—	1	1		1	1	0	2	0	4	3			5	2	
October.....	2	4	1	2	2	3	—	14	10		3	1	3	2	1	10	7			24	9	
November.....	2	2	3	0	0	4	—	11	8		2	4	0	1	0	8	6			19	7	
December.....	3	5	2	0	1	1	—	12	9		1	4	4	2	0	12	9			24	9	
Total:																						
Number.....	24	24	25	24	14	20	4	135	—		30	30	25	29	17	7	1	139	—	—	—	
Per cent*.....	18	18	19	18	10	16	3	—	100		22	22	18	21	12	5	1	—	100	—	—	
Total both sets																						
Number																						
Per cent*																						
1960 1961 1962 1963 1964 1965 1966																						
54 54 50 53 31 27 5																						
20 20 18 19 11 10 2																						
274 —																						
100																						

*Rounded and therefore may not add up to 100 per cent.

TABLE 17

DISTRIBUTION OF TRANSFERS (BY SIZE OF TRACT) FOR 135 VERIFIED BONA FIDE TRANSFERS, FOR 139 NONVERIFIED TRANSFERS, AND FOR THE TOTAL OF 274 TRANSFERS, IMPERIAL VALLEY SUBAREA

Size of tract	Distribution of		
	Verified bona fide transfers	Nonverified transfers	Total, all transfers
	<i>number</i>		
40 to 80 acres.....	52	54	106
81 to 160 acres.....	48	45	93
161 to 320 acres.....	25	27	52
321 to 640 acres.....	7	8	15
Over 641 acres.....	3	5	8
Total.....	135	139	274
	<i>per cent*</i>		
40 to 80 acres.....	39	39	39
81 to 160 acres.....	36	32	34
161 to 320 acres.....	19	19	19
321 to 640 acres.....	5	6	5
Over 641 acres.....	2	4	3
Total.....	100	100	100

*Rounded and therefore may not add up to 100 per cent.

TABLE 18
DISTRIBUTION OF TRANSFERS BY
VERIFIED GROSS SALES PRICE
FOR 135 BONA FIDE TRANSFERS,
IMPERIAL VALLEY SUBAREA

Verified gross sales price	Transactions	
	<i>number</i>	<i>per cent*</i>
Less than \$20,000....	10	7
\$20,000-\$39,999.....	22	16
\$40,000-\$59,999.....	21	16
\$60,000-\$79,999.....	22	16
\$80,000-\$99,999.....	17	13
\$100,000-\$149,999....	19	14
\$150,000-\$199,999....	7	5
\$200,000-\$249,999....	5	4
\$250,000-\$299,999....	5	4
Over \$300,000.....	7	5
Total.....	135	100

*Rounded and therefore may not add up to 100 per cent.

acre (net of nonland improvements) was between \$550 and \$649 as indicated by the distribution of prices paid shown in the first half of table 19. Estimates of the value of nonland improvements were obtained by using the assessed value of improvements for the last tax year prior to the sale and an average assessment ratio of 20 per cent.¹⁰ The gross sales price of tracts of land with improvements was reduced by the estimated cash value of those improvements to obtain the price net of nonland improvements.

The typical price per acre paid by non-resident buyers was somewhat greater than that observed in purchases by residents. The typical price for nonresidents was between \$850 and \$949 per acre, whereas the median price paid by residents was between \$550 and \$649 per acre (fig. 5 and table 19). The average price (net of improvements and weighted by the total acreage of 23,184 acres associated

¹⁰ The average assessment ratio for Imperial County from 1961 through 1966 was 20.1 per cent (California State Board of Equalization [1967]). Assessment ratios, defined as the county ratio of total assessed value to full cash value of locally assessable property, ranged from 18.5 to 21.2 per cent over the period 1961-66.

with the set of 135 verified land transfers) was actually \$648.17 per acre.

Figure 5 also shows the distribution of real (actual) prices by year over the period of the study. Of the 97 transfers in the first 4 years 1960-63, 25 were to nonresident buyers for an average of about one out of every four sales. However, only four out of a total of 38 transfers from January 1964 through June 1966 involved a non-resident buyer.

Rather rapid land appreciation was characteristic of the farm real estate market nationwide as well as in California during the period of this study. The USDA estimate of the compound annual rate of increase in the value of farm land in the Pacific farm production region is 5.7 per cent per year over the decade 1958-68, and 5.9 per cent over the shorter period, 1963-68. Since this study includes observations of land prices over an extensive 78-month period, verified per acre prices (net of improvements) were inflated

by .5 per cent per month from the date of the transaction to January 1, 1967, to acknowledge the fact that land purchased early in the period would have commanded a higher price at a later date. The distribution of inflated prices is given in the second half of table 19 and is shown graphically (by year) in figure 5.

On the basis of per acre prices inflated to January 1, 1967, levels the typical purchase price was between \$650 to \$749 per acre. This price range was also typical for tracts purchased by resident buyers. The typical purchase price by nonresident buyers is again higher, between \$1,150 to \$1,249 per acre. The increased spread between prices paid by resident and non-resident buyers is due largely to the higher participation rate of nonresident buyers in the early portion of the time covered in this study (as noted above). This characteristic also underlies the higher inflated prices observed particularly over the period 1960-63 which, as figure 5 shows, were

TABLE 19
DISTRIBUTION OF TRANSFERS BY AVERAGE PER ACRE SALES PRICE
(NET OF IMPROVEMENTS), FOR 135 VERIFIED BONA FIDE TRANSFERS,
IMPERIAL VALLEY SUBAREA

Verified sales price, less estimated value of improvements	Frequencies, real prices			Frequencies, prices inflated by 0.5 per cent per month to January 1, 1967, values		
	Resident buyers	Nonresident buyers	Total	Resident buyers	Nonresident buyers	Total
	number		per cent	number		per cent
<i>per acre</i>						
Less than \$150...	3	1	3	3		2
\$ 150 to \$ 249...	6	1	5	3	1	3
\$ 250 to \$ 349...	6		4	5	1	4
\$ 350 to \$ 449...	16	2	13	7		5
\$ 450 to \$ 549...	21	1	16	6	2	6
\$ 550 to \$ 649...	18	2	16	22	2	18
\$ 650 to \$ 749...	12	4	13	19		14
\$ 750 to \$ 849...	7	3	7	13	3	12
\$ 850 to \$ 949...	11	4	11	3	1	3
\$ 950 to \$1,049...	5	9	10	7	2	7
\$1,050 to \$1,149...	1	2	2	9	2	8
\$1,150 to \$1,249...				5	2	5
\$1,250 to \$1,349...				4	5	7
\$1,350 to \$1,449...					5	4
\$1,450 to \$1,549...					2	1
\$1,550 to \$1,649...					1	1
Total.....	106	29	100	106	29	100

Real prices

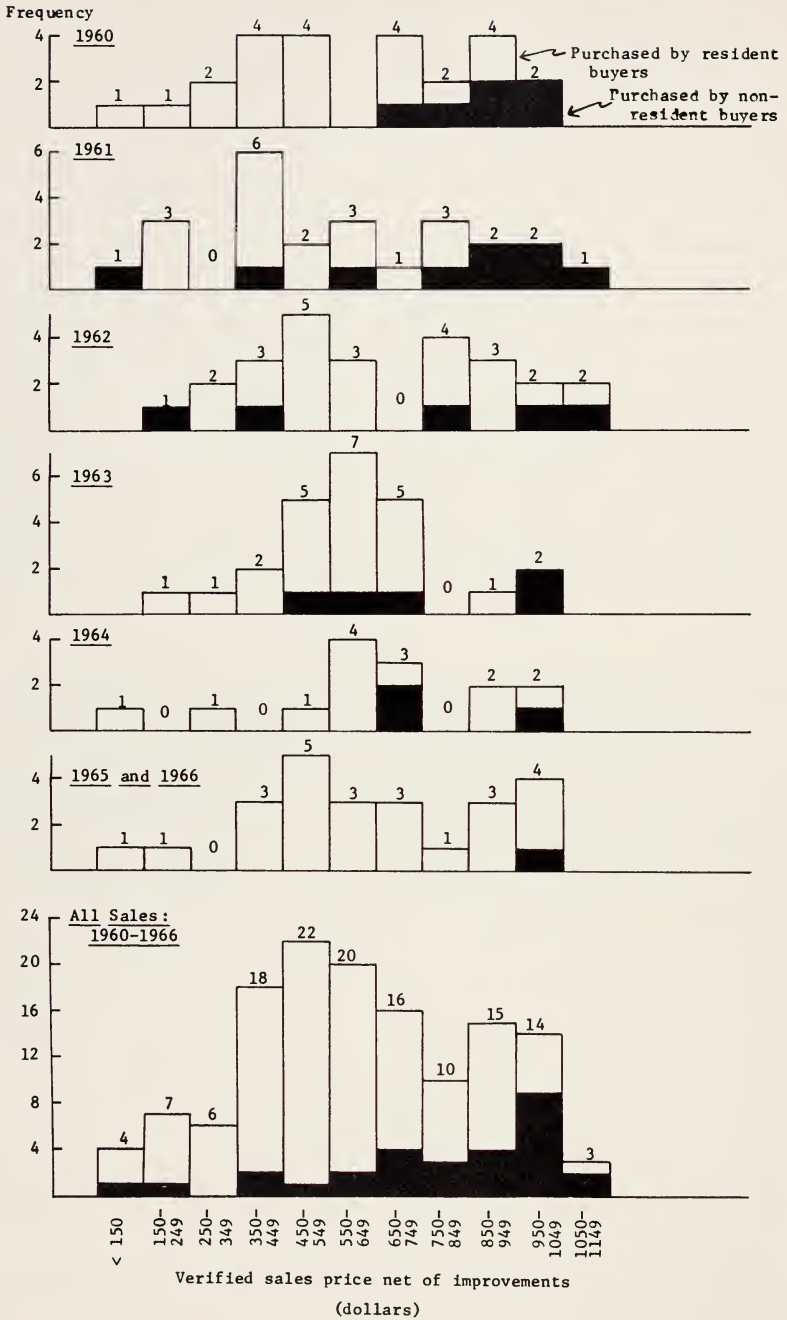
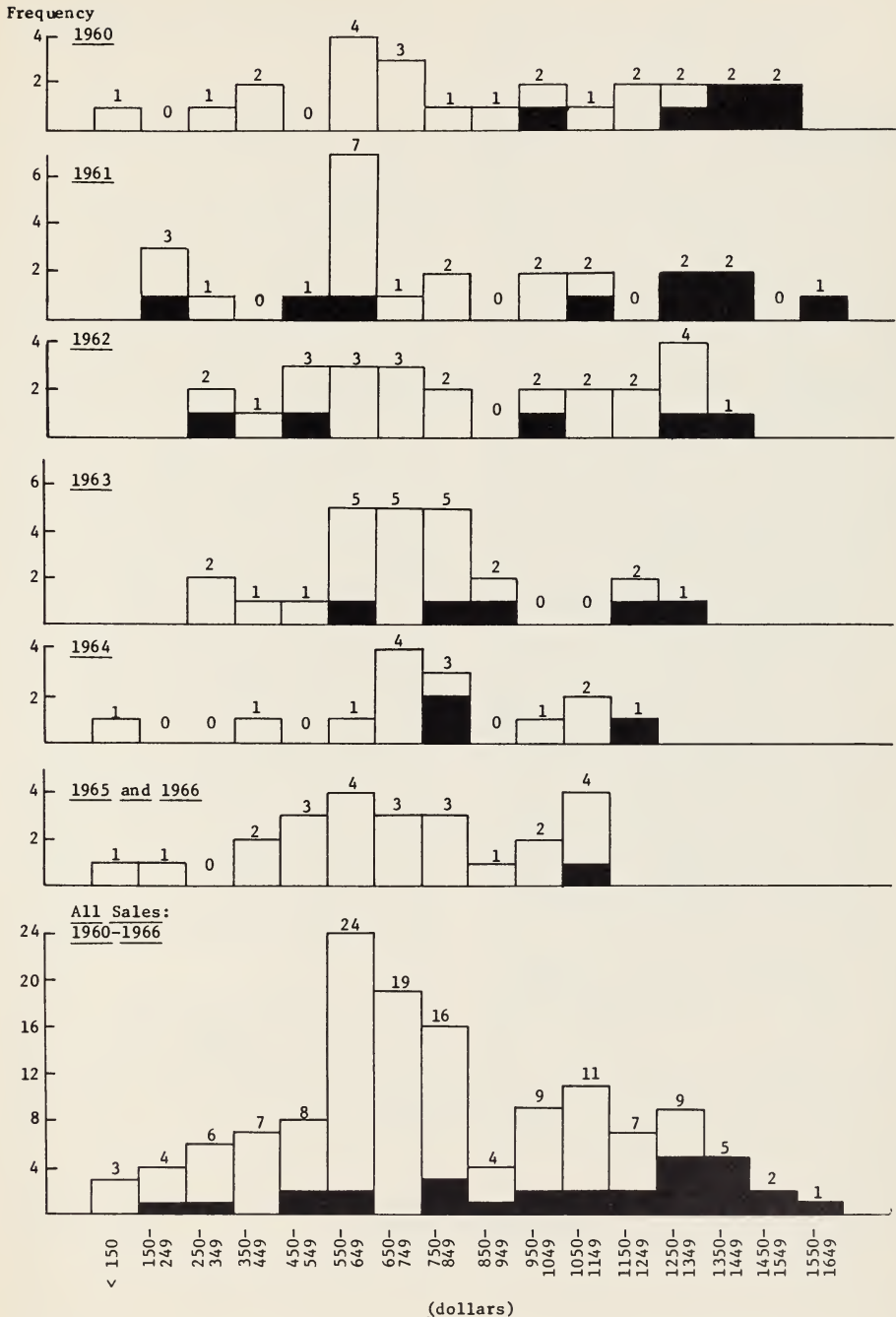


Fig. 5. Distribution of average sales prices, less estimated value of improvements per acre, by resident and nonresident buyers for (continued next page)

Inflated prices (0.5 per cent per month to January 1, 1967 values)



135 verified bona fide transfers, Imperial Valley subarea. (See also table 19 for data on distribution of inflated prices.)

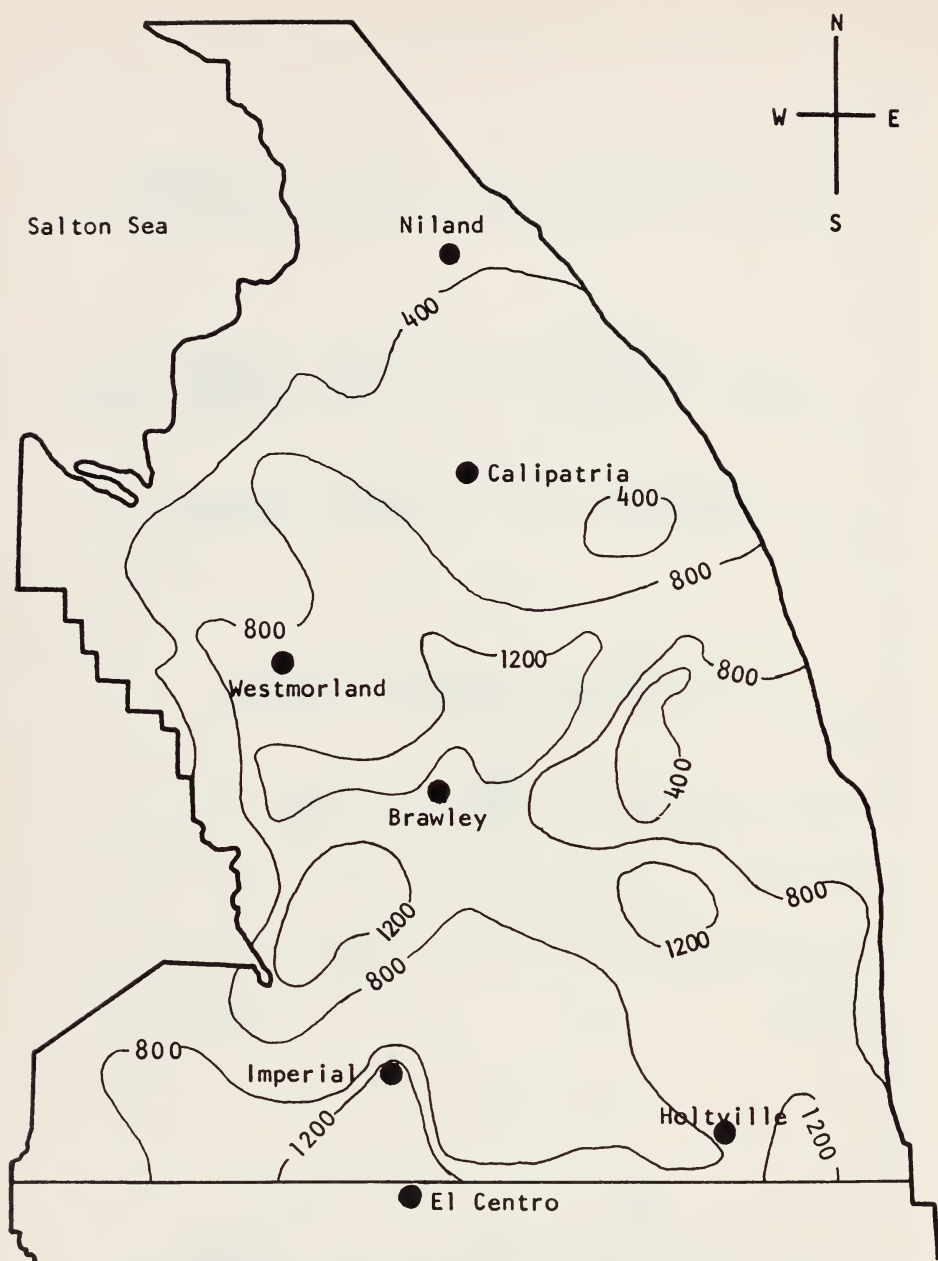


Fig. 6. Isoprice map based on per acre land prices inflated to January 1, 1967 values, Imperial Valley subarea (dollars).

due largely to purchases by nonresidents. The difference between prices paid by resident and nonresident buyers is included in a statistical analysis later in this report.

An Isoprice Map of the Imperial Valley Subarea

Figure 6 is based on inflated per acre prices (January 1, 1967, values) and represents an attempt to roughly depict their general spatial distribution within the Imperial Valley subarea. Iso-price (equal) contours, drawn about verified sales data only, delineate areas wherein per acre land prices were generally less than \$400, \$400 to \$800, \$800 to \$1,200, and \$1,200 and more per acre. The area adjacent to the Salton Sea and in the northernmost portion of the subarea is characterized by heavier textured (Type IV) soils and appears to be still in early development stages (the basis of the relatively low per acre prices revealed by this survey). Heavier soils are also associated with the two smaller areas with per acre prices of \$400, and less, in the east central portion of the study area. Established vegetable production areas coincide with enclosures by \$1,200 contours—near Brawley, El Centro, and Holtville; however, the high price ridge between El Centro and Imperial may also be due, in part, to long-term non-agricultural development potential, although there was conscious effort to eliminate sales with apparent near-term non-agricultural use intention from the survey.

Cotton Allotments Transferred

Buyers of 72 of the 135 tracts indicated that they had acquired cotton allotments ranging from 1.5 to 280 acres with the purchased tract. A total of 1,724.6 acres of cotton allotments was transferred. The average over the tracts which had cotton allotment transfers was 12.2 per cent of deeded acreage.

The remaining 63 tracts were transferred without cotton allotments. The average cotton allotment for the total of

23,184 acres of land transferred amounted to 7.4 per cent of all deeded acreage.¹¹

Estimated Cash Value of Nonland Improvements

Records in the office of the county assessor were available for all but 16 tracts out of the total of 135 included in the verified set of transactions. Assessment records for the 16 tracts did not exist for the tax year prior to the transaction because the tract transferred was not an identifiable parcel in the preceding year. This was usually due to the tract being a portion of a larger parcel of land previously identified on the tax rolls.

Nonland improvements were not large in value (dollar) magnitudes. Of the 119 tracts, 91 (76 per cent) were without assessable improvements. The assessed value of improvements ranged from \$70 to \$3,170 on the 28 tracts with improvements. The total assessed value of improvements for all tracts was only \$31,130. Assuming that an assessment ratio of 20 per cent is appropriate, the estimated cash value of improvements is \$155,650 and averages only about \$5,560 per tract.

The relatively minor importance of improvements is also reflected in the fact that the average gross price per acre for the 135 transfers was \$657.04, while the average price (net of improvements) was \$648.17 per acre. Thus, over the entire 135 transactions the estimated cash value of improvements averaged only \$8.87 per acre.

Post-Purchase Improvements In Land

The quality of land in the Imperial Valley is closely dependent on the quality of water in the Colorado River, which is the source of irrigation water for the Imperial Irrigation District. Soils in the Imperial Valley are characterized by high salt accumulations; soil quality has been adversely affected by the degradation of water quality in the lower reaches of the Colorado River. Under these conditions,

¹¹ This is in sharp contrast to the estimates resulting from the Tulare County subarea where it was found that transferred cotton allotments accounted for 32.1 per cent of all deeded acreage. Corresponding estimates for Tulare and Lower Tule River Irrigation Districts were 33.4 and 30.6 per cent, respectively.

extensive investments in drainage systems are commonplace and leaching is widely practiced. In 1948, only 71,000 acres of land had tile drains. Recent estimates indicate that there are now more than 13,000 miles of tile drains on over 300,000 acres—which is about three-fourths of all the cultivated land in the Valley (Scott and Johnston, 1968).

A deterioration in the quality of land could be reflected in lower land values in the future. Therefore, owners invest in land improvements to offset the possible effects of poor water and soil qualities on productivity, and to insure against economic losses on their investments. Several farmers expressed concern about the non-awareness of these problems by absentee nonresident buyers and the resultant adverse effect on landlord-tenant relations. It was felt that nonresidents were relatively less aware of the effect of degraded water quality upon soil salinity (and productivity) and, therefore, were reluctant to invest in drainage systems to offset the degradation of water quality during their sometimes short periods of ownership.

The magnitude and incidence of investments in land improvements were investigated in the survey. Buyers were first asked to subjectively evaluate the drainage of purchased tracts at the time of acquisition. Less than average drainage was associated with 55 tracts transferred, average drainage with 65 tracts, and only 15 tracts were subjectively evaluated as having above average drainage at the time of transfer (table 20). It is possible that resident farmer buyers might provide a

more accurate measure of the drainage on purchased tracts. A total of 95 tracts were purchased by residents who indicated that they intended to farm the land themselves. Almost one-half evaluated purchased tracts to have less than average drainage, 40 per cent average, and 12 per cent above average drainage.

Buyers were then asked to indicate whether they made improvements in land after purchase. There was no attempt to identify the types of practices or investments in the questionnaire; rather, buyers were asked what sorts of investments had been made which they thought led to improvements in land. Buyers' responses ranged from leveling, leaching, and slip-plowing to rather costly investments in additional or (in some cases) complete underground tiling systems.

Of the 135 tracts, buyers indicated that improvements had been made on 66 tracts—roughly one-half of all tracts transferred and 10,185 or 44 per cent of the total of 23,184 acres covered in the survey. Buyers of 56 tracts (9,138 acres) also provided estimates of their investments in land improvements which ranged upwards to \$400 per acre. The total investment was \$885,800, an average of \$85.52 per acre.

Although 66 tracts (49 per cent) had had post-purchase improvements in land, there was obvious variability between the incidence on tracts purchased by residents and by nonresidents. Resident buyers carried out improvements on 54 of 106 tracts, whereas some improvement was noted for only 9 of the 29 tracts purchased by nonresidents, two of the nine tracts belonged

TABLE 20
BUYERS' SUBJECTIVE EVALUATION OF DRAINAGE QUALITY AT TIME
OF PURCHASE FOR 135 TRANSFERS, IMPERIAL VALLEY SUBAREA

Evaluation of drainage	Evaluation by			
	All buyers		Resident farmer buyers	
	<i>number</i>	<i>per cent</i>	<i>number</i>	<i>per cent</i>
Less than average.....	55	41	46	48
Average.....	65	53	38	40
Above average.....	15	12	11	12
Total.....	135	106	95	100

to buyers who intended to farm the land themselves. The relatively low rate of improvement by nonresidents is more pronounced because the typical nonresident purchase was made earlier in the time period (as shown previously). The nine nonresident buyers reported that they had invested \$94,500 on tracts constituting a

total acreage of 1,280 acres. Their average investment in land improvements was about \$74 per acre, or somewhat less than the over-all average, but it is possible that tenants may have performed some additional practices (e.g., slip-plowing) which could have been classified as leading to land improvement.

INFERENCES FROM REGRESSION MODELS

The final phase of this report employs multiple regression models in an attempt to use quantitative data from the survey to explain observed variability of agricultural land prices. Preliminary analysis revealed that the most reliable results were obtained from analyses using the 87 tracts in the Imperial Valley subarea and the 80 tracts in the Tulare County subarea for which detailed information was available from personal and mail surveys.

Table 21 summarizes results of the multiple regression models adjudged most satisfactory in their power to explain observed variability in farm real estate prices in each of the two subareas. The dependent variable—the phenomena whose variation the model seeks to explain—is verified price per acre, net of estimated nonland improvements. Only one-third to one-half of the observed variation in net prices per acre is explained by the selected sets of independent variables included in models 1–3. The Durbin-Watson statistic indicated that there was no serial correlation in the regressions reported in table 21.

The low explanatory power of the models, evidenced by relatively low values for coefficients of multiple determination (R^2 's), results from the inability to quantify all considerations which cause land prices within even rather homogeneous areas to vary among observed transactions. This endeavor—i.e., the attempt to model the factors influencing land prices—makes apparent the difficulty of explaining land price variability from only quantitative

data. Other nonquantitative or extremely difficult to measure factors such as buyer (or seller) motivation, the influence of alternative forms of financing, completeness of knowledge about productivity and expected incomes from ownership, etc., influence the determination of prices and create price variability among individual tracts transferred in the farm real estate market.¹² However, despite the apparent inability of the regression models to explain relatively large proportions of total variability, statistically significant relationships between the dependent and independent variables available to this analysis are of interest.

Model 1 is a regression for the Imperial Valley subarea. Statistically significant variables include percentage of crop land, weighted average Storie Index for the tract, a monthly time trend, and a dummy (0–1) variable which identifies the buyer's residence. Two variables associated with drainage quality are also included because of their utility in model 2, but they are not statistically significant in this "all buyers'" model. Despite the relatively low explanatory power of model 1 ($R^2 = .331$), this and subsequent models demonstrate the importance of the cited independent variables in their relation to variations in observed net per acre prices.

Using only statistically significant variables, model 1 can be interpreted as follows:¹³ The net per acre price of the typical acre of land with average drainage in the Imperial Valley sold to nonresident

¹² For an interesting and more detailed presentation of agricultural land prices and individual price variability of tracts about "market value" see Harris and Allee (1963, pp. 7–12).

¹³ Means of independent variables for model 1 are: percentage crop land, 0.842; weighted average Storie Index, 52.46; and month, 33.54.

TABLE 21
RESULTS OF MULTIPLE REGRESSION MODELS OF FARM REAL ESTATE PRICES, IMPERIAL VALLEY
AND TULARE COUNTY SUBAREAS*

Type of model	Number of observations	Coefficient of multiple determination (R^2)	Standard error of the regression (s_y)	Constant	Percentage crop land	Weighted average Storie Index	Above average drainage†	Less than average drainage†	Time trend‡ (month)	Resident buyers§
Imperial Valley subarea:										
All buyers' model.....	87	.331	227.76	+204.46	+393.79 (3.64)*	+2.78 (1.66)*	+134.86 (1.50)	-40.21 (0.68)	+2.66 (2.15)*	-203.59 (3.16)*
Resident buyers' model.....	65	.484	172.17	-185.93	+534.42 (5.17)*	+2.47 (1.60)	+278.80 (3.41)*	+53.19 (1.06)	+3.40 (3.17)*	—
Tulare County subarea:										
All buyers' model.....	80	.424	233.26	-494.40	+939.50 (5.35)*	+3.55 (2.80)*	—	—	+3.93 (2.74)*	—

*All models use price per acre (net of improvements) as the dependent variable. Parentheses enclose t-ratios for the null hypothesis $\beta = 0$ and when asterisked indicate only .10 or less probability of population regression coefficient being equal to zero.

†Dummy variables for observations with average drainage equal to zero.

‡January 1960 = 1, February 1960 = 2, etc. The last variable for the Imperial Valley subarea is June 1966 = 78 and for the Tulare County subarea, December 1965 = 72.

§Dummy variable with nonresident buyer = 0; resident buyer = 1.

buyers is equal to \$204.46 (the constant), plus \$331.57 for the average percentage of crop land, \$145.84 for the mean weighted average Storie Index, and \$89.22 for sale in the average month. The resultant total of \$771.09 per acre holds for purchases by nonresident buyers; resident buyers obtained the comparable typical acre for \$567.50, which is \$203.59 less than what nonresident buyers paid at the same point in time for tracts with similar percentages of crop land and weighted Storie tract ratings, and with average drainage.

The statistically significant coefficient for the resident-nonresident dummy variable is of interest, as is the magnitude of that estimate. The distribution of transfers discussed previously (table 19) suggested that nonresident buyers had paid relatively higher prices than resident buyers. However, that observation in itself could not be interpreted as though nonresidents paid more for comparable land since croppable acreage, soil quality, time of sale, etc., varied among tracts purchased. But the regression analysis does suggest that even after the above factors have been taken into account, resident buyers appear to have purchased comparable land for an estimated \$203.59 per acre less than did nonresidents. Nonresidents may have been less informed about the productivity of the land they purchased, less successful in bargaining about price, or influenced by other factors which led them to pay more per acre than their resident counterparts.

Model 2 results from an analysis of the 65 transfers purchased by residents only. If the above noted disparity between prices paid by resident and nonresident buyers is valid, model 2 is an attempt to explain price variability among a more homogeneous and, perhaps, more knowledgeable group of buyers. The fact that the percentage of price variability explained by the model increases from 33.1 for model 1 to 48.4 per cent for model 2 using the same independent variables and that the standard error of the regression is

reduced by \$55 per acre appears to support the hypothesis that the set of resident buyers were more consistent in their range of purchase prices than the larger set of all buyers described by model 1.

Results for model 2 also differ in the respect that the subjective evaluation of drainage on purchased tracts is a statistically significant variable in the model of resident buyers' purchase prices. This is apparently due to the extent that tracts with above average drainage appear to have had a \$278.80 per acre advantage over tracts purchased at the same point in time with comparable percentages of crop land and weighted Storie tract ratings, but subjectively evaluated as having only average drainage. Model 2 would then estimate a price of \$514.55 per acre for land with average drainage and \$793.35 per acre for land with above average drainage as the expected price paid by resident buyers when all other variables in the regression model are evaluated at their means.¹⁴

The regression model for the Tulare County subarea (model 3) is also summarized in table 21. Only three quantifiable variables—percentage of crop land, weighted average Storie Index, and time—are included in the models based on purchases by all buyers. Unlike results for the Imperial Valley subarea, quality of drainage and buyer residence were not found to be statistically significant factors associated with variation in land prices in the Tulare County subarea. The typical per acre net price is estimated to be \$782.70 per acre when the independent variables are evaluated at their means.¹⁵

A hypothesis in the early stages of this study was that the percentage of cotton allotment on individual tracts would reveal a direct and measurable influence on per acre sales price in multiple regression models. However, in the many alternative model formulations investigated in this study, variables reflecting the presence of cotton allotments on tracts transferred were statistically insignificant; that is, there was nothing to be inferred statis-

¹⁴ Means of independent variables for model 2 are: percentage crop land, 0.838; weighted average Storie Index, 54.78; and month, 34.51.

¹⁵ Means of independent variables for model 3 are: percentage crop land, 0.946; weighted average Storie Index, 68.10; and month, 37.25.

tically about the value of cotton allotments. In the case of the Tulare County subarea, this result may have been because most tracts had rather uniform allotments in the magnitude of $\frac{1}{4}$ to $\frac{1}{3}$ of crop land acreage. It is the dominant crop in that subarea and historically has been included in the operation of most of the farms there. The consequence is then that there was not much variability in the independent variable to associate with observed differences in per acre prices. In contrast, there was wide variability in the proportion of cotton allotment found on tracts in the Imperial Valley, but in that area there are other high value crop alternatives available to compete with cotton on farm production units. Thus, for different reasons in the two subareas, one is not able to infer statistically from the regression analysis that cotton allotments differentially influence per acre sale prices.

A further indicator perhaps underlying the statistical insignificance of cotton allotments is that buyers only gave the motivation of purchase for larger cotton allotment for 2 of 141 tracts purchased in both study areas (see table 2).

The three models in table 21 can also be used to give some insight into the average rate of price appreciation in the two study areas. The rate of price appreciation for resident buyers in the Imperial Valley is estimated at an average of .47 per cent per month from model 1 and .66 per cent per month from model 2. The rate of appreciation averaged .5 per cent per month in the Tulare County subarea. It would then appear that the average rate of land value appreciation in the two study areas was very close to the USDA estimate of 5.9 per cent annually over the period, 1963-69, for the Pacific farm production region.

SUMMARY

This report is based on a survey of farm real estate transfers in a Tulare County subarea consisting of the land lying within the Tulare and Lower Tule irrigation districts and approximately the northern 80 per cent of the Imperial Unit of the Imperial Irrigation District (Imperial Valley subarea). Personal interviews with resident buyers supplemented by information from mail-out questionnaires returned by nonresident buyers provide the data underlying the reported characteristics of the farm real estate market in the two study areas. Major findings include the following facts.

1. One-half of all purchases were for the primary purpose of farm enlargement and nearly one-third were viewed chiefly as investments by buyers. Among resident buyers, two-thirds of all purchases were for farm enlargement and less than one-fifth were chiefly for investment purposes, whereas nearly three-fifths of the total purchases by nonresidents were primarily for investment purposes. Nonresidents also indicated that about one-fourth of the tracts purchased by them were to replace

land sold previously outside the two study areas. Farm enlargement as a primary motivation for land purchase was relatively more important in the Tulare County subarea than in the Imperial Valley subarea.

2. Buyers expect that sons or relatives will continue farming operations in the future on about two-fifths of the tracts purchased.

3. Financial pressure and realization of profit each accounted for about one-fourth of the sellers' motivation to sell as subjectively assessed by buyers. Retirement was the primary basis for the transfer of an additional one-fifth of the total sales. Sellers in the Tulare County subarea were relatively more motivated by financial pressure and less by realization of profit than those in the Imperial Valley subarea.

4. Farmers accounted for almost two-thirds of all sales. About one-third of all sales by farmers were thought to be due to financial pressure; a comparable percentage was due to combined retirement and health-age motivations. Over two-fifths of the tracts sold by nonfarmers were ad-

judged to have resulted from the opportunity to realize profit; financial pressure and unsatisfactory renting experience were next most important reasons for sales by nonfarmers.

5. Resident buyers were typically younger than nonresidents. The typical buyer was a high school graduate and one-fifth of all buyers had completed at least four years of college.

6. Over two-fifths of all buyers learned that the tracts they purchased were for sale directly from the seller and about one-third were so informed by a real estate broker or agent. The former source was relatively more important than the latter for both resident buyers and for Imperial Valley subarea transfers.

7. Nearly one-half of all buyers had actively searched for land, mostly in the same county, prior to their purchase. A time limit imposed by possible liability for capital gains taxation on land previously sold was responsible for some of the purchases. On the basis of a somewhat limited response, the typical buyer felt that he had experienced no difficulty in finding the type of land he wanted, although this was not true for nonresident buyers in the Imperial Valley.

8. A sellers' market was more evident in the Imperial Valley subarea than in Tulare County. In those cases where the seller's initial asking price was reported, about three-fourths of the sales in the former area had final transfer prices equal to the seller's asking price as compared to one-half in the latter subarea. Where price concessions were achieved from sellers, resident buyers were relatively more successful than nonresidents. About two-thirds of the transfers characterized by price concessions had final transfer prices equal to counter-offer prices of the buyer. For those cases not reporting seller asking prices, the buyer's initial offer price was accepted for nearly nine-tenths of the transactions. Elements of nonprice bargaining (terms of sale, mineral rights, etc.) was reported for only one-eighth of the transactions. About one-fifth of all buyers were aware of competition for the tract purchased.

9. Methods of financing varied between the two subareas and among the two

classes of buyers. Mortgages on purchased tracts were the single most common method of financing in both subareas, and were associated with more than one-third of all transfers. It was relatively more important in the Tulare County subarea and among resident buyers. Cash purchases, accounting for one-eighth of all transfers, were concentrated in the Imperial Valley subarea and among nonresident buyers—nearly one-third of all nonresident purchases and more than one-half of Imperial Valley nonresident purchases were cash sales. One-fifth of all sales utilized two or more types of financing—typically, an assumed mortgage plus a new mortgage on the purchased tract—one-tenth of all transfers appeared to require no cash down. Slightly more than one-half of the transfers relied solely on financial institutions as the source of financing of non-cash sales; sellers were the sole source of financing for one-third of the transactions.

Some additional characteristics of the farm real estate market in the Imperial Valley subarea were examined in more depth. The following are summarized from that more specific analysis.

1. Resident buyers accounted for four-fifths of all transfers. Purchasers intended to farm the acquired agricultural lands in three out of four cases. Resident buyers gave farming as the intended use over renting out by a ratio of 9 to 1, whereas the ratio was 1 to 4 for tracts purchased by nonresidents.

2. About one-sixth of all tracts transferred were involved in more than a single real estate transfer during the study period. The remainder had only single changes of transfer.

3. Annual sales activity (in numbers of real estate transfers) was nearly constant during the years 1960 through 1963, but dropped sharply thereafter. Nonresident buyers were involved in 1 out of every 4 transfers in the former period, but in only one-tenth of the activity in the latter period. Seasonal activity was highest from April through July and lowest in March, August, and September.

4. Nearly three-fourths of all transfers involved tracts of land of 160 acres or less.

5. The typical land transfer had a gross

sales price of \$60,000 to \$79,999 and two-thirds of the transactions had gross sales prices of less than \$100,000.

6. The typical verified price per deeded acre (net of nonland improvements) was between \$550 and \$649 per acre. The typical price paid by residents was also between \$550 and \$649, but the median price for nonresident purchases was between \$850 and \$949 per acre. An adjustment for the appreciation of land values over the lengthy 61½-year study resulted in an even more marked divergence between typical resident and nonresident purchase prices because of relatively heavier nonresident activity in the early portion of the study period.

7. Three-fourths of tracts for which assessment records were available were without assessable improvements. The average estimated cash value of improvement on the remaining tracts was only \$5,560 per tract. Over all transactions the estimated cash value of improvements averaged less than \$9 per acre.

8. Resident buyers evaluated the drainage at time of purchase as less than average on one-half of the tracts. Post-purchase improvements in land averaging about \$85 per acre had been carried out on one-

half of the tracts. Improvements were made on more than one-half of the tracts purchased by residents, while only one-third of nonresident-purchased tracts had post-purchase improvements.

The use of regression models to explain the observed variability in net prices per acre led to the following additional inferences:

1. Using available quantitative data, only one-half, or less, of the observed price variability is explainable.

2. Nonresidents appeared to have paid about \$200 per acre more for comparable lands than residents in the Imperial Valley subarea.

3. Resident buyers appeared to have paid about \$280 per acre more for tracts subjectively evaluated by them to have above average drainage than for comparable lands with average drainage.

4. Residence of buyers and drainage characteristics of purchased tracts did not appear to have influenced price in the Tulare County subarea.

5. The rate of land value appreciation in the two subareas appeared to have averaged 0.47 to 0.66 per cent per month over the time span of this study.

ACKNOWLEDGMENTS

The author gratefully acknowledges the cooperation of those whose response to personal interviews and mail surveys provided most of the primary data used in this study. Assistance and cooperation were also freely given by the Imperial and Tulare County Assessor's offices and the staff of the Tulare, Lower Tule, and Imperial Irrigation Districts. Mr. Doyle Kauk and Mr. Phil Pierre, former graduate students in the Department of Agricultural Economics at Davis, assisted in the design of the questionnaire, supervised the surveys, and performed much of the initial summarization of the data. The final analysis was carried out with the able assistance of Mr. Geoffrey Allen and Mrs. Sue March. Lastly, the author would be remiss if he did not acknowledge the typing of early drafts by Mrs. Micki Eagle and the final manuscript by Mrs. Barbara Huffine. Financial assistance for this study was provided in part by the U. S. Department of Agriculture, Economic Research Service, Farm Production Economics Division, under Cooperative Agreement No. 12-17-03-2-114.

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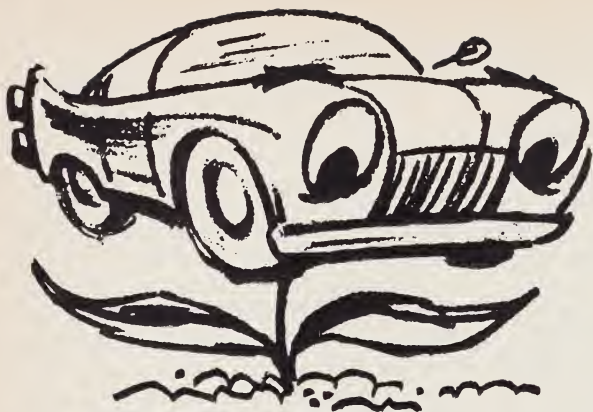
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736,000 bushels of flax-
seed
74,000 bales of cotton

or, in terms of approximate acreage:

. 15,000 acres of corn
80,000 acres of flax
78,000 acres of cotton

During the same period this company used products derived from 364,000 sheep and 36,000 cattle—plus many other items such as hog bristles and beeswax. In all, produce equivalent to the output of 1,000 good-sized farms is needed yearly. No wonder a top executive in the automotive industry has said: "Our plants, here and throughout the world, would have to close their doors in a few days if their flow of agricultural materials were to stop."

Supplying America's countless industries—and feeding the nation bountifully—makes agriculture America's biggest and perhaps most important business. That is one reason why anything which affects agriculture affects everybody.